Has the medicalisation of childbirth gone too far?

Richard Johanson, Mary Newburn, Alison Macfarlane

Over the past few centuries childbirth has become increasingly influenced by medical technology, and now medical intervention is the norm in most Western countries. Richard Johanson and colleagues argue here that perhaps normal birth has become too "medicalised" and that higher rates of normal birth are in fact associated with beliefs about birth, implementation of evidence based practice, and team working

Academic Department of Obstetrics and Gynaecology, North Staffordshire Maternity Hospital, Stoke on Trent ST4 6QG
Richard Johanson *professor of obstetrics*
National Childbirth Trust, Alexandra House, Oldham Terrace, London W3 6NH
Mary Newburn *head of policy research*
Department of Midwifery, St Bartholomew School of Nursing and Midwifery, City University, London EC1A 7QN
Alison Macfarlane *professor of perinatal health*
Correspondence to: M Newburn m_newburn@national-childbirth-trust.co.uk

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Summary points

- Obstetricians play an important role in preserving lives when there are complications of pregnancy or labour
- In developed countries, however, obstetrician involvement and medical interventions have become routine in normal childbirth, without evidence of effectiveness
- Factors associated with increased obstetric intervention seem to include private practice, medicolegal pressures, and not involving women fully in decision making
- Emerging evidence suggests that higher rates of normal births are linked to beliefs about birth, implementation of evidence based practice, and team working

Until the 17th century, birth in most parts of the world was firmly in the exclusively female domestic arena, and hospital birth was uncommon before the 20th century, except in a few major cities.[1 2] Before the invention of forceps, men had been involved only in difficult deliveries, using destructive instruments with the result that babies were invariably not born alive and the mother too would often die. Instrumental delivery with forceps became the hallmark of the obstetric era. In the 19th and 20th centuries, medical influence was extended further by the development of new forms of analgesia, anaesthesia, caesarean section, and safe blood transfusion. The introduction first of antiseptic and aseptic techniques and later of sulphonamides, coupled with changes in the severity of puerperal sepsis, lowered the maternal mortality that had made hospitals dangerous places in which to give birth.[3]

Medicalisation and safe motherhood

Maternal mortality in the West fell substantially during the 20th century. The World Health Organization and Unicef estimated the average maternal mortality ratios for 1990 as 27 per 100 000 live births in the more developed countries compared with 480 per 100 000 live births in less developed countries, with ratios as high as 1000 per 100 000 live births for eastern and western Africa.[4] The WHO has estimated that almost 15% of all women develop complications serious enough to require rapid and skilled intervention if they are to survive without lifelong disabilities.[5] This means that women need access not only to trained midwives but also to medical services if complications arise. In a North American religious community that declined all forms of professional assistance, maternal mortality remained as high as 100 years ago.[6] Despite this, the decreases in maternal, perinatal, and infant mortality in the West owe much to the impact on health of developments in disease control, smaller family sizes, and higher standards of living, including improved diet. It also cannot be assumed without careful attention to the evidence that access to obstetric care has invariably had beneficial effects.[1–7] In England and Wales in the early 1930s, for example, maternal mortality was lower among women with husbands in manual occupations, who were mainly cared for by midwives, than among those who were married to men in non-manual occupations, who were more likely to have care from doctors.[8]

Increasing rates of unnecessary intervention

Over the past two centuries, especially in parts of the world with thriving private practice, obstetricians have increasingly taken over responsibility for normal birth in addition to their involvement in complicated births. In many countries women who have straightforward pregnancies are subjected to routine intravenous infusions and oxytocin in labour. Women without obstetric complications are encouraged to have electronic fetal monitoring and epidural analgesia. Frequently labour will be in the dorsal position and delivery in lithotomy. Perineal injury is standard. As labour intervention has become more widespread, so too have assisted delivery rates and major surgery. Caesarean section rates in the United States, Canada, Italy, and the United Kingdom are all about 20%[9]; obstetricians must be held accountable for these rising rates.

Brazil, with a 36% caesarean section rate, is often portrayed as a country where there is an unusually high demand for caesarean sections, especially among more affluent women. However, Hopkins found that doctors were active participants in decision making and used their expertise and authority to convince women to "choose" a caesarean.[10]

In Spain, obstetric care includes routine enemas, pubic shaving, and episiotomy, procedures that are not evidence based and which ignore the WHO's guidelines on the care of women in labour. The extent of medicalisation in Spain is reflected in some of the highest caesarean section rates in Europe (26.4% in Catalonia with a 40% increase over five years); obstetricians have been criticised for not allowing women to participate in decisions about their maternity care.[11]

Long term morbidity after childbirth can be substantial,[12] and this is particularly related to instrumental and caesarean delivery. Specific concerns relate to painful intercourse and urinary and anal incontinence.

Medicolegal pressures and defensive practice

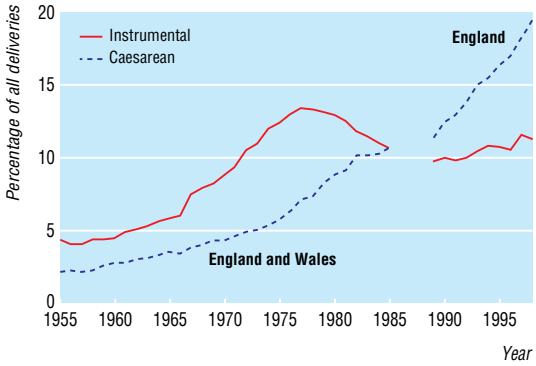
Given that the NHS in the United Kingdom is facing a bill for medical negligence of £2.6bn ($5.9bn; €4.2bn)—double the amount for 1997[13]—it is reasonable to ask whether professionals are encouraged to act "defensively" (particularly as 70% of litigation relates to obstetrics). Most obstetric cases relate to labour ward practice, and 99% of these relate to "failure to intervene" or "delay in intervention."

As perinatal mortality is reduced and medical science becomes increasingly sophisticated, public expectations change. There is a tendency to believe that most if not all deaths could have been prevented. Although confidential inquiries into stillbirths and deaths in infancy repeatedly show that suboptimal care is a serious problem contributing to preventable deaths, death is probably unavoidable in some babies. The courts are not always good at distinguishing between preventable and unavoidable deaths.[14] If doctors say no to intervention and things go wrong, professionals' defensive behaviour will rise further.[15] Few cases that reach the courts are brought because of "unnecessary intervention." Compared with a dead or damaged baby, the case of a woman claiming she did not give informed consent, or was traumatised by unnecessary treatment, even if proved, would make little impact in terms of the financial award.

Contribution of midwives to medicalisation

Few investigations have assessed the influence of midwives on medicalisation. Quantitative studies provide some insight into the direction of change and how midwives feel about it. Olsson and coworkers made video recordings of midwives' consecutive encounters with women and couples at antenatal and postnatal consultations.[16] The authors found that "a mechanistic and medicalised understanding of childbirth" seemed to dominate the discussions. Kirkham found "learned helplessness and guilt" among UK midwives—respondents spoke of a world in which they were constantly threatened by blame.[17] Working in a blame culture disempowers professionals.

Use of inappropriate electronic fetal monitoring perhaps illustrates the extent and pervasiveness of medicalised practice in Western maternity care. In the United States, Canada, and recently England, major reviews of the evidence have concluded that electronic fetal monitoring should be reserved for high risk pregnancies.[18] Use of electronic fetal monitoring has increased worldwide, however, in both low and high risk groups. In the North Staffordshire NHS Trust, over a three year period, far from approaching the evidence based desired outcome, the proportion of women receiving any electronic monitoring rose from 70% to 93% (R B Johanson and C Rigby, unpublished data).



Operative delivery rates, 1955 to 1999-2000, in England and Wales. Data from Ministry of Health, Department of Health and Social Security, Welsh Office, Office of Population Censuses and Surveys (maternity hospital in-patient inquiry), and Department of Health (hospital episode statistics)

"De-medicalisation" of birth

So what can be done to "de-medicalise" birth? A study commissioned by the Canadian health minister suggests that maternal or newborn programmes in Ontario can maintain low caesarean section rates over time, regardless of their size, location, level of care they provide, and population they serve. Twelve critical success factors, including "the right attitude, focus, leadership, teamwork, support, and a personal and financial commitment to best practice and continuous quality improvement," were identified, based on practices at four Ontario hospitals with comparatively low caesarean rates.[19] The "right attitude" included taking pride in a low caesarean rate, developing a culture of birth as a normal physiological process, and having a commitment to one to one supportive care during active labour. This hypothesis has enormous implications and should be tested in other settings, including UK maternity units.

Philosophy of care

The Scandinavian countries and the Netherlands, which did not follow the trend towards steep increases in caesarean sections during the 1990s,[9] have a tradition of perceiving birth above all as a normal physiological process and of valuing low intervention rates. Arguably the predominant and growing philosophy of care in the United Kingdom during the past decade has been "value-free" choice, rather than a philosophy of birth as primarily a physiological process. Increases in caesarean rates have been attributed by some as an appropriate clinical response to women's preferences about their care,[9] following recommendations that women should have choice, control, and continuity of carer. The justification has been providing women centred care, but many women report that they have inadequate information about the risks and benefits of procedures[9] and therefore the extent to which they can exercise informed choice must be questioned. As 51% of consultant obstetricians in England, Wales, and Northern Ireland have said they believe that the caesarean rate in their unit is too high,[9] perhaps the tipping point may have been reached for more decisive action to be taken to review practice in relation to quality standards.

In Scotland, where wide variations in surgical deliveries have been found between units, four evidence based recommendations have been prioritised: clinicians and women should regard trial of labour as the norm after a previous caesarean; offering external cephalic version to women at term if their baby is breech; monitoring and regularly reviewing caesarean data with support for staff; and one to one midwifery care for all women in labour.[20] The National Childbirth Trust—a UK parents organisation—is concerned about medicalisation and erosion of midwifery skills and confidence. It believes that women do not so much make informed choices as find themselves constrained by the culture of the unit they attend. The organisation has published a birth policy calling for the maternity services to be managed in a way that will increase the proportion of straightforward vaginal births.[21]

Continuity

Flint and colleagues suggested that when midwives get to know the women for whom they provide care, interventions are minimised.[22] The Albany midwifery practice, with an unselected population, has a rate for normal vaginal births of 77%, with 35% of women having a home birth.[23] A review of care for women at low risk of complications has shown that continuity of midwifery care is generally associated with lower intervention rates than standard maternity care.[24] Variation in normal birth rates between services (62%-80%), however, seems to be greater than outcome differences between "high continuity" and "traditional care" groups at the same unit.[25–27] Use of epidural analgesia, for example, varies widely between Queen Charlotte's Hospital, London, and the North Staffordshire NHS Trust. As epidural analgesia has been shown in randomised trials to reduce the likelihood of a normal vaginal delivery this could contribute to the variation in normal delivery rates seen.[28] Indeed, medicalisation of the environment could be the dominant effect in the United Kingdom, over-riding potential benefits of continuity and "knowing your midwife."

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Childbirth in the 16th century was the province of women; men kept out of the way

Community based care

The highest rates of normal birth seem to be associated with successful community focused approaches. In a randomised controlled trial comparing community based care with standard hospital care a significant difference in caesarean section rates was found (13.3% *v* 17.8% respectively).[29] Planning a home birth[30] or booking for care at a midwife led birth centre is also associated with lower operative delivery rates. The rate for normal births at the Edgware Birth Centre in London and at a birthing centre in Sweden were 85.6% and nearly 90% respectively.[31 32]

What is not yet clear is the relative contribution to birth outcomes of health professionals' attitudes, continuity of carer, midwife managed or community based care, and implementation of specific practices (such as continuous emotional and physical support throughout labour, use of immersion in water to ease labour pain, encouraging women to remain upright and mobile, minimising use of epidural analgesia, and home visits to diagnose labour before admission to birth centre or hospital). In practice, these factors often overlap. Further research is needed to test whether high rates for straightforward births can be achieved in well designed hospital settings with committed managers.

Conclusion

If the growing trend towards medicalisation is to be halted and reversed, the "blame and claim" culture must be addressed. Childbirth without fear should become a reality for women, midwives, and obstetricians. True team working is needed, with development of a shared philosophy of care and mutual respect. The maternity services liaison committee is, and will continue to be, a useful forum for clinicians from all relevant disciplines to work together with informed user representatives and input from pregnant women and new parents, on initiatives to continuously improve the quality of care. Reviewing the available clinical evidence, and learning lessons form individual cases, is important. What is known about women's wishes and fears should also be addressed, so that women centred, clinically effective services can be developed. Visits to units or countries with a less medicalised approach should be encouraged.

Women prioritise their baby's and their own safety very highly and worry about losing control,[9] so services offering high rates of straightforward birth with guaranteed midwifery support throughout labour, low need to admit babies to special care baby units, and good postnatal and breast feeding support are popular.

Primary care trusts will play a key role in commissioning services that contribute to improving public health, encourage partnership working and user involvement, and emphasise normality.[33] Further research is needed on the factors that maximise normal births and healthy outcomes for mothers and babies, in the short and longer term.

Since this paper was submitted for publication, one of the authors, Richard Johanson, has died.

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Competing interests: The National Childbirth Trust, where MN is head of policy research, is a campaigning charity committed to increasing the proportion of straightforward vaginal births.

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Memorable patients

Zambia needs basic medicines and HIV education

About 500 km along the Great East Road from Lusaka, in Zambia, lies a mission hospital. This hospital serves a population of almost 200 000 subsistence farmers—a population devastated by AIDS.

Mabvuto is 25 years old and is dying on the male medical ward of this hospital. He is cachectic and weak. He has chronic diarrhoea and cough. Oesophageal candidiasis makes swallowing painful. He had one child who died last year at the age of 2 years. He is HIV positive. He has been abandoned and stigmatised by his own family. His bewildered wife is on the point of despair. She cannot understand what has happened to her husband. His family believes it is the work of witchcraft—mediated by the wife. They think that through witchcraft she is responsible for her own child's death and her husband's illness. Returning to the village will be hard for her after his death. We teach about HIV causing the illness, but many find this hard to understand.

Mabvuto is lucky. At the hospital we currently have good stocks of vitamins, antidiarrhoeals, haematinics, and antifungals. However, demand for these basic drugs in our hospital often exceeds the supply. In addition, for every patient like Mabvuto in hospital there will be numerous in the surrounding villages whom we never see because they cannot afford the cost of transport.

Mabvuto is indeed lucky as we can also check his sputum for tuberculosis and do chest radiography. We have a good supply of tuberculosis drugs, which are given free of charge. Elsewhere in Zambia this is all too frequently not the case. Many Zambians start tuberculosis treatment but then default because the free drugs run out.

Recently, there has been much discussion about the provision of affordable antiretroviral drugs for Africa. I hope that one day this goal will be realised, but not before many other goals have been achieved.

Mabvuto, and the hundreds like him who pass through our hospital each year, need far more basic drugs than antiretrovirals. Patients like Mabvuto present only when they are in the end stage of disease. Zambia can in no way afford to give all of these people with AIDS related complex simple measures such as multivitamins, minerals, loperamide, antihelminthics, iron, folic acid, and nystatin—and certainly not prophylaxis against tuberculosis and *Pneumocystis carinii* pneumonia.

Zambia's population needs to be educated about HIV and AIDS and how HIV spreads. They do not need to hear about "cures" from the industrialised world that they cannot afford. For viral load testing, CD4 counts, and even liver function tests the patients from this region need to travel 500 km to the capital, Lusaka. The cheapest bus fare is roughly equivalent to a nurse's weekly wage. However, zidovudine can be bought in a private chemist in the local town (80 km away). Currently only very wealthy patients can afford even a few weeks of this drug. This is how some patients spend all of their meagre savings in the few weeks before they die. If the population is not educated about HIV, and antiretroviral drugs are made cheaper in Zambia, then a greater proportion of the young adults dying from AIDS related diseases will have no money to leave their families after they have died.

Mabvuto and numerous other memorable patients like him needed education and very basic medicines before they need these very expensive drugs made just about affordable.

D Elphick *specialist physician, St Francis' Hospital, Katete, Zambia*